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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------------------|------------------------|
| 10/730,640 | 12/08/2003 | Joon-Kit Goh | SE0040 | 2947 |
| 29393 7590 08/10/2007 ESCHWEILER & ASSOCIATES, LLC NATIONAL CITY BANK BUILDING 629 EUCLID AVE., SUITE 1000 CLEVELAND, OH 44114 | | | EXAMINER PERUNGAVOOR, VENKATANARAY | |
| | | | ART UNIT 2132 | PAPER NUMBER |
| | | | MAIL DATE 08/10/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/730,640

Applicant(s)

GOH, JOON-KIT

Examiner

Venkat Perungavoor

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 13-27 is/are rejected.
- 7) ☒ Claim(s) 9-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>12/03,7/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-8, 13-17, 19, 21, 23-27 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 2004/0208314 to Patariu et al.(hereinafter Patariu).
3. Regarding Claim 1, 25-27, Patariu discloses the single DES engine operable to provide security processing, the single DES engine employing an intermediate result at a data output of the single DES engine, to the single DES engine further comprising an input node adapted to selectively process input data from a data input of the security processing circuit during a first DES processing operation, and subsequently to process the intermediate result data from the data output during a second and third DES processing operation see Par. 0034 & Par. 00029 & Par. 0036; a select switch coupled to the data input of data processing circuit, the data output and input node of single DES engine, the select switch adapted to selectively couple one of the data input and the intermediate result of the input node of single DES engine see Par. 0036 & Fig.2 item 210 & 212; a set of cipher keys selectively coupled to the single DES engine, operable to select and load different cipher key associated

with each DES processing operation to the single DES engine during three DES processing operations of 3DES processing see Fig. 2 item 212 & Par. 0032.

4. Regarding Claim 2, Patariu discloses the select switch is operable to selectively couple one of data input and intermediate result to single DES engine according to the state of selection see Par. 0040.
5. Regarding Claim 3, Patariu discloses the multiplexor see Fig. 2 item 210.
6. Regarding Claim 4-5, Patariu discloses the three different key and key being selected for each round see Par. 0046.
7. Regarding Claim 6, Patariu discloses the multiplexor residing between set of keys and single DES machine see Fig. 2 item 212.
8. Regarding Claim 7, Patariu discloses the FIFO and multiplexors which inherently run on clock cycles see Fig. 2.
9. Regarding Claim 8, Patariu discloses the 3DES processing completed in three single DES operations see Par. 0032.
10. Regarding Claim 13, Patariu discloses the segmentation of outputted data see Fig. 3.

11. Regarding Claim 14-17, 21, Patariu discloses the network interface device to selectively encrypt data outgoing to network see Par. 0027-0028 & Fig. 5 item 508 & 502.
12. Regarding Claim 19, Patariu discloses the bus interface adapted to transfer data see Fig. 5 item 506; media access control system to transfer data to and from the network see 508a & 508b; the single DES engine employing an intermediate result at a data output of the single DES engine, to the single DES engine further comprising an input node adapted to selectively process input data from a data input of the security processing circuit during a first DES processing operation, and subsequently to process the intermediate result data from the data output during a second and third DES processing operation see Par. 0034 & Par. 00029 & Par. 0036.
13. Regarding Claim 23, Patariu discloses the transferring data between the network interface device and host system see Fig. 5 item 506; transferring data between network interface and the network see item 508a; obtaining security information associated with outgoing data see Par. 0068; storing the outgoing data from the bus interface see Fig. 1 item 104; selectively performing security operation and storing the outgoing data see Fig. 1 item 108, 110; transferring the output data onto the network interface device and further transferring onto the network see Fig. 5 item 506, 508a.
14. Regarding Claim 24, Patariu discloses the selectively encrypting the data see Par. 0017.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 18, 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 2004/0208314 to Patariu et al.(hereinafter Patariu) in view of US Patent 2003/0169877 to Liu et al.(hereinafter Liu).

17. Regarding Claim 18, 22, Patariu does not disclose the IPsec circuit to provide for authentication, encryption and decryption functions. However, Liu discloses the authentication, encryption and decryption function see Fig. 2B. It would be obvious to one having ordinary skill in the art at the time of the invention to include the authentication, encryption and decryption function in the invention of Patariu in order to provide for secure transmissions over network.

18. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 2004/0208314 to Patariu et al.(hereinafter Patariu) in view of US Patent 6874054 to Clayton et al.(hereinafter Clayton).

19. Regarding Claim 20, Patariu does not disclose the PCI-X bus interface. However, Clayton discloses the PCI-X bus interface see Col 4 Ln 29-41. It would be obvious to one having

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ordinary skill in the art at the time of the invention to include PCI-X bus interface in the invention of Patariu in order to provide for interface on an ASIC as taught in Clayton see Col 4 Ln 29-41.

Allowable Subject Matter

20. Claims 9-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

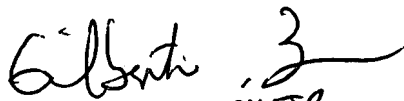
Conclusion

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Venkat Perungavoor whose telephone number is 571-272-7213. The examiner can normally be reached on 8:30-5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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22. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VP/
Venkat Perungavoor
Examiner
Art Unit 2132
August 7, 2007


GILBERTO BARRON JR
SUPERVISORY PATENT EXAMINER
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